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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,945	07/23/2003	Jerry G. Jex	42P15876	9920
8791	7590	12/29/2006	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN			TSE, YOUNG TOI	
12400 WILSHIRE BOULEVARD			ART UNIT	PAPER NUMBER
SEVENTH FLOOR			2611	
LOS ANGELES, CA 90025-1030				
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/29/2006	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/625,945	JEX ET AL.	
	Examiner YOUNG T. TSE	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 July 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,4-11,14-16,19-23 and 26-28 is/are rejected.
- 7) Claim(s) 2,3,12-13,17-18 and 24-25 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 July 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>See Continuation Sheet</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :20040521;20050207;20050307; and 20060315.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because the numeral number "218" shown in Fig. 11 should be "332" as shown in Fig. 10. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

2. The abstract of the disclosure is objected to because the term "Still other embodiments are described and claimed." in line 9 of the abstract should be deleted.

Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities:

At page 2, lines 4-7, the Applicants are requested to update the application No. 10/625,944 including the filing date of the application filed July 23, 2003.

At page 16, lines 12-16 and 26-29 and page 17, lines 1-3 and 11-15, the description of Q1 and Q2 at times t3, t4 and t6 does not correspond to the waveforms shown in Fig. 11.

Appropriate correction is required.

***Claim Objections***

4. Claims 10-15 and 23-28 are objected to because of the following informalities:

In line 10, line 4, "a periodic reference signal" should be "the periodic reference signal".

In claim 10 (lines 3 and 4), claim 12 (lines 3 and 4 (both occurrences)), claim 13 (line 3), claim 15 (line 3), claim 23 (lines 3-4, 9, 11 and 11-12), and claim 24 (line 3), the term "cycle encoded signal" should be "full cycle encoded signal" to better describe the present invention since "a full cycle encoded signal" represents the cycle of the CES (or CCES) shown in Fig. 5 while "a cycle encoded signal" or "a data time segment"

represents one of the timing segments 1-8 shown in Fig. 5, wherein each data time segment is a bit of “1” or “0”.

In claim 27, line 1, the term “the receiver that receives” should be “the receiver receives”.

As mentioned earlier in claims 11 and 23 to change “cycle encoded signal” to “full cycle encoded signal”, claims 12 and 28 should be canceled since the claimed limitations recited in claims 12 and 28 are already included in claims 11 and 23.

Wherein claim 14 is directly depended on the independent claim 10.

Wherein claims 25-26 and 28 are directly depended on the independent claim 23.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 9, 15 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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Claim 9 depends on claim 1 and further comprising "a receiver ... to provide a data output signal which recovers data from another cycle encoded signal" does not shown in any of the drawings and described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Also see claim 15.

The specification fails to support and describe that the recovered values are the inverse of those of the input data input signal.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 9, 15, 21-22 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9, 15, 21 and 27 are vague and indefinite because the delay circuit and the logic circuit recited in the claims lacks connection or cooperation with the initial receiving circuit.

Wherein claim 22 is directly depended on claim 21.

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 23, 26 and 30 are provisionally rejected on the ground of nonstatutory double patenting over claims 28-30 of copending Application No. 10/625,944. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: although the independent claim 23 of the instant application does not include of claimed limitations of the independent claim 28 of copending Application No. 10/625,944 that the receiver includes an initial receiving circuit to compare the full cycle encoded signal and the complementary full cycle encoded signal to provide a received signal in response thereto, a delay circuit to provide at least two delayed signal, and a logic circuit to provide the output data signal, they are not patentably distinct from each other because the broader claim 23 of the instant application would have been obvious in view of the

narrow pending claim 28 of copending Application No. 10/625,944 (see *In re Emert*, 124 F.3d 1458, 44USPQ2d 1149).

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

### ***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 4-8, 10-11, 14, 16, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Pliffner (U.S. Patent No. 5,623,518).

Pliffner discloses a system in each of Figs. 2A to 2D, wherein each system comprises a transmitter section and a receiver section. In Fig. 2A, the transmitter section comprises a CPU 30, a D/A converter 32, a BPS filter 34 and a TFA transformer 36 and the receiver section comprises a TFE transformer 42, a BPE filter 40, a COMP comparator 38 and the CPU 30.

With respect to claims 1, 10-11 and 16, the transmitter section includes a cycle encoding circuit which could be one of or the combination of the CPU 30, the D/A converter 32, the BPS filter 34 and the TFA transformer 36 to receive a data input signal

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28 and to provide a full cycle encoded signal 10 as shown in Fig. 1A in response thereto by continuously joining portions of different encoding signals, wherein some of the encoding signals have a different frequency than others of the encoding signals and some of the encoding signals have a different phase than others of the encoding signals, and wherein data is represented in data time segments of the full cycle encoded signal and no data time segment has more than one cycle of an encoding signal. See column 6, lines 38-52.

With respect to claims 4 and 19 and in addition to claim 10, a periodic signal source or a clock generator 70A shown in Figs. 2B to 2D to provide a periodic reference signal and wherein the transmitter includes circuits to provide the encoding signals in response to the periodic reference signal.

With respect to claims 5 and 6 as shown in Fig. 1A, clearly, the periodic reference signal has period that is equal to the time length of the data time segments and has a period that is equal to the time length of a data bit cell of the data input signal.

With respect to claims 7, 14 and 20 as shown in Fig. 2A, wherein the encoding signals shown in the FSK signal 10 include a first signal (first bit) with frequency  $f_t$ , a second signal (second bit) that is an inverse of the first signal, a third signal (third bit) that has a frequency  $f_n$ , and a fourth signal (fifth bit) that is an inverse of the third signal.

With respect to claim 8, wherein the full cycle encoded signal represents a 0 or a 1 depending on the value of the data.

***Allowable Subject Matter***

13. Claims 2-3 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
14. Claims 12-13 would be allowable if rewritten to overcome the objection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
15. Claim 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
16. Claims 23-28 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action and file a terminal disclaimer signed by the assignee fully comply with 37 CFR 3.73(b).
17. Claim 27 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Boykin is related to an apparatus and method for coherent phase demodulation of a binary phase shift keying carrier includes sequentially processing plus and minus polarity samples of a plurality carrier segments occurring within each carrier data symbol.

Walker is related to a communication system which is capable of transmitting binary data in a reliable and efficient way.

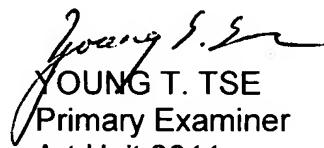
Boles is related to a decoding circuit for Manchester-encoded data and having a synchronously adjustable clock.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



YOUNG T. TSE  
Primary Examiner  
Art Unit 2611